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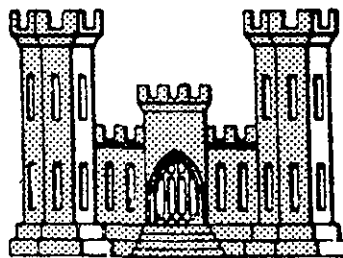
# LITTLEVILLE

## DAM & RESERVOIR

MIDDLE BRANCH, WESTFIELD RIVER, MASSACHUSETTS

## DESIGN MEMORANDUM NO. V

REAL ESTATE



U.S. ARMY ENGINEER DIVISION, NEW ENGLAND  
CORPS OF ENGINEERS WALTHAM, MASS.

MAY 1961

LITTLEVILLE DAM AND RESERVOIR

MIDDLE BRANCH, WESTFIELD RIVER  
CONNECTICUT RIVER BASIN

MASSACHUSETTS

DESIGN MEMORANDUM NO. V

REAL ESTATE

2 June 1961

U. S. ARMY ENGINEER DIVISION, NEW ENGLAND  
CORPS OF ENGINEERS

424 TRAPELO ROAD  
WALTHAM 54, MASS.

ADDRESS REPLY TO:  
DIVISION ENGINEER

2 June 1961

REFER TO FILE NO.  
NEDRR

SUBJECT: Design Memorandum No. V, Real Estate, Littleville Reservoir,  
Massachusetts

TO: Chief of Engineers  
Department of the Army  
Washington 25, D. C.  
ATTENTION: ENGRE...AP

1. Submitted herewith for review and approval are three (3) copies of Design Memorandum No. V, Real Estate, for the Littleville Reservoir, Massachusetts, covering lands and interests therein required for flood control and other purposes. The area considered in this report is located in Hampshire and Hampden Counties of Massachusetts.

2. Preliminary studies indicate that 1650 acres are to be acquired in fee and an additional area of 30 acres is to be encumbered by flowage easements. These estimates are subject to change after field surveys disclose the true location of pertinent contours and their relationship to property lines.

3. Lands covered by Design Memorandum No. V, Real Estate, are programmed for acquisition in fiscal years 1962-63.

4. It is recommended that the subject memorandum be approved and this office authorized to proceed with the acquisition of land and interests required on the basis of the plan outlined therein and in accordance with existing regulations.

1 Incl:  
Design Memo No. V  
(in trip.)

SEYMOUR A. POTTER, JR.  
Brigadier General, USA  
Division Engineer

DUAL-PURPOSE FLOOD CONTROL AND WATER SUPPLY PROJECT

LITTLEVILLE DAM AND RESERVOIR

MIDDLE BRANCH - WESTFIELD RIVER

CONNECTICUT RIVER BASIN

MASSACHUSETTS

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LITTLEVILLE DAM & RESERVOIR

MIDDLE BRANCH, WESTFIELD RIVER  
CONNECTICUT RIVER BASIN

MASSACHUSETTS

DESIGN MEMORANDUM NO. V

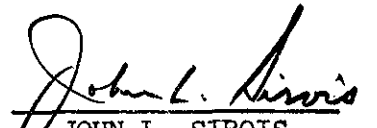
REAL ESTATE

This Real Estate Memorandum has been prepared in accordance with EM-405-2-150 dated 1 October 1958.

PREPARED BY:

REVIEWED BY:

  
PAUL E. HANGLIN  
Appraiser

  
JOHN L. SIROIS  
Reviewing Appraiser

APPROVAL AND CERTIFICATION

The undersigned herewith approves this Real Estate Memorandum and certifies that he has inspected the lands proposed for acquisition within the project area and comparable property in the vicinity; that data set forth herein are complete and accurate to the best of his knowledge.

  
WARREN B. BATTIS  
Chief, Appraisal Branch

APPROVED FOR THE DIVISION ENGINEER:

  
J. M. GEOGHEGAN  
Chief, Real Estate Division

DATED: 2 June 1961

LITTLEVILLE DAM AND RESERVOIR

MIDDLE BRANCH, WESTFIELD RIVER  
CONNECTICUT RIVER BASIN

MASSACHUSETTS

DESIGN MEMORANDUM NO. V

REAL ESTATE

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#### EXHIBITS

A	Reservoir Plan
B	Location Map
C	Sales Map
D	Aerial Photograph
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# LITTLEVILLE DAM AND RESERVOIR

## MIDDLE BRANCH, WESTFIELD RIVER CONNECTICUT RIVER BASIN

### MASSACHUSETTS

#### DESIGN MEMORANDUM NO. V

#### REAL ESTATE

### 1. PROJECT DESIGNATION AND PURPOSE

This project has been designated as the Littleville Reservoir and is one unit of the comprehensive plan for flood control and other purposes in the Westfield River and Connecticut River valleys. It provides for the construction of a dam on the Middle Branch of the Westfield River.

Construction of the Littleville Reservoir as a flood control project has been authorized under Title II of the Flood Control Act of 1958, Public Law 85-500.

Under the authority of Title III of the Water Supply Act of 1958, Public Law 85-500, an act which authorizes and encourages the construction of dams for the dual purpose of flood control and water supply providing that local interests agree to participate in project costs, the dam has been designed to accommodate future water supply storage for the City of Springfield, Massachusetts. The officials of this city have received conditional endorsement of their request for water for this reservoir project from the Massachusetts Water Resources Commission and have filed a bill in the State Legislature to authorize the use of this additional source of water supply. Written assurance of participation in the cost of the project has been received from the City of Springfield. A copy of the assurance is included as Exhibit #4 in the General Design Memorandum.

### 2. LOCATION OF THE PROJECT

The project is located on the Middle Branch of the Westfield River partly in Hampshire County and partly in Hampden County, Massachusetts. The dividing line between the counties corresponds with the Huntington-Chester town line. Nearly all of the retention basin and part of the damsite are in the town of Chester, Hampden County, Massachusetts. The remainder of the damsite is in the town of Huntington, Hampshire County. The damsite is one mile above the confluence of the Middle Branch and the main stream of the Westfield River.

The City of Westfield, Massachusetts is located 15 miles southeasterly from the project and the City of Springfield, Massachusetts is 25 miles in the same direction. The town of Chester is 115 miles from Boston, 70 miles from Albany, New York, and 140 miles from New York City. See Exhibit "B", Location Map.

### 3. AREA DESCRIPTIVE DATA

The project area is located in the southwest quarter of the State of Massachusetts on the eastern edge of the Berkshire Hills Range. The area is rural in nature with scattered small villages each having limited shopping and service facilities interspersed with small farms and rural residences. There are large expanses of vacant land most of which is covered with wood growth of medium density. The general area is characterized topographically by sharply sloping hills and ridges rising generally toward the west. Numerous streams and rivers flow serpentine courses between the ridges and series of hills in easterly and southerly directions flowing together into the Westfield and then the Connecticut Rivers. Elevations vary sharply with differences of 800' to 1000' within one-half mile. There is very little level land available for development or agricultural purposes and that which is available is generally along the tops of ridges or along the banks of streams through narrow valleys.

The nature of the terrain greatly limits access. Roads are winding and steeply sloped and there are few all-year crossroads connecting highways or major town roads. U.S. Route #20 which runs generally east-west passes through the village of Chester following generally the course of the West Branch of the Westfield River and connects Pittsfield to the west and Westfield to the east in this area. The Massachusetts Turnpike parallels the course of Route #20 from eastern Massachusetts to the New York state line and passes 5 miles southerly of the project area. The nearest interchanges are located in Westfield to the east and Lee to the west, each about 20 miles from the damsite.

Mass. Route #112 angles northward from Rte 20 in the center of Huntington and follows the course of the East Branch of the Westfield River, connecting the adjoining town of Worthington in this area and then runs to the Vermont state line. From Route #112 in Huntington Center, an all-year town road runs northwesterly through Chester to Middlefield along the top of the westerly ridge overlooking the project area and is known as the Skyline Trail. About four miles northerly a second town road angles northwesterly from Route #112 along the course of the Middle Branch.

Rail transportation is available at Huntington and Chester for freight only on the Boston-Albany Railroad.

The nearest principal development of industrial and commercial enterprise is in the City of Springfield and the cities of Westfield and Northampton. Westfield is the major center for employment, recreation, and shopping. Westfield has a current population of 26,000 and is classified as an industrial center in its own right, as well as being suburban to Springfield, which accounts for its population growth of about 25% in the past ten years. In 1958, 476 firms reported 6071 persons employed with an annual payroll of \$25.5 million. Principal manufacturers include H. B. Smith Company, steel fabrication; Textile Manufacturing Company, Win. Warren Thread Company, and several firms engaged in the manufacture of paper boxes, special papers and hardware items. Since 1955 new homes have been built at an average rate of nearly 200 per year.

The growth pattern exhibited by Westfield has not extended to the Towns of Huntington or Chester with current populations of 1400 and 1000 respectively, both slightly below 1955 levels. Early industrial growth in these towns extended through the 19th century based on the availability of fast running pure streams, extensive timber stands and mineral deposits. Rising labor costs and depletion have reduced these activities which are no longer considered economical in the rough terrain. An exception near the project area is the abrasives and emery

products industry carried on by two companies in Chester which employ 180 persons, utilizing local deposits of magnetite.

Meteorological data indicates a mean temperature in January of 27.5 degrees Fahrenheit and 73.1 degrees Fahrenheit in July. Annual precipitation totals 43.85 inches including 50.5 inches of snow.

The town of Huntington in which the southerly portion of the damsite will be located, is situated at the southwest corner of Hampshire County. There is a small but diversified shopping center near the intersection of U.S. Route #20 and Mass. Route #112 with a built-up residential area along these roads. Most of the remaining area is sparsely settled. The central area has a municipal water supply system which does not extend into the project.

The northern portion of the damsite and the retention basin are located in the Town of Chester which is situated at the northwest corner of Hampden County. The principal area of settlement and a small shopping center are located off Route #20 about seven miles northwest of Huntington on the West Branch of the Westfield River. There are several elementary schools. Most of the town is served by the Chester Municipal Light Department, the remainder by the Huntington Electric Light Co. There is a municipal water supply system which serves the main settlement off Rte #20, but it does not extend into the project area.

#### 4. TRENDS AND TRANSITION

Over the past fifty years, industrial activity and agriculture have declined and both towns are now classified as residential communities. In the last two decades there has been a small influx of summer residents with several cottages, a number of former farms and year-round residences purchased for summer use only. Neither town has experienced any new subdivision construction, and an average of only three new homes have been built per year over the past ten years. Demand for real estate has not increased perceptibly, but real estate values have risen following the trend of nearby communities where the increase in real estate activity has been closer to normal for the state. There is no substantial difference in real estate values between the town of Chester and Huntington in the project area.

#### 5. DESCRIPTION OF THE PROJECT AND SITE

The damsite and work area will include approximately 70 acres. Access to the damsite is via Route #112 in Huntington to the North Chester Road which becomes East River Road in Chester. Dayville is located at the upper reach of the proposed reservoir and North Chester at the upper end of the valley. Originally there were about eight small dairy farms scattered through the reservoir area, but currently only two are classified as economic farms of 30-40 cow herds; one has been converted to a nursing home, and the others have reverted to rural residences or subsistence farms.

At the village of Littleville, there is a ruin of an old sawmill which has been purchased with its water rights in the river. Part of the old mill has been rebuilt into a residence.

The damsite will run from high ground on the ridge on each side of the river. The enclosing ridges rise very steeply from the stream bed and the majority of improvements are on the fairly level narrow area along the stream banks. Property bounds extend up the sides of the ridges, frequently well above the top of the dam. Very few of these properties have frontage on a road other than East River Road and consequently will not be accessible after the lower areas and the road have been acquired. In most such instances, sound real estate practice will dictate the purchase of the total property.

Four town roads angle upward on the ridges from East River Road. At Littleville a bridge across the river connects South Worthington Road, which runs in a northerly direction on the east side of the Middle Branch to the top of the valley. The southerly 2 miles or so of this road are capable of all-year maintenance and there are five improved properties on this road above the maximum flowage easement guide taking line. Beyond a short private road known as Howard Road, which runs easterly from South Worthington Road, the latter road is impassable to vehicular traffic.

Kyle Road rises up the west ridge from Littleville connecting Bromley Road, an all-weather road on the top of the ridge. Kyle Road is very steep and impassable except for a short period during the summer, and is not considered capable of being maintained all year.

At the village of Dayville, Maynard Road rises up the west ridge to connect Crane Road which in turn joins Chester Hill Road (the Skyline Trail) which is an all-weather road. Both Maynard Road and Crane Road are passable only during summer months, and Maynard Road is too steep to permit all-year maintenance.

To the east from Dayville over a bridge, Kinney Brook Road runs northerly up a small valley into the town of Worthington. This road is capable of being maintained all year, but is improved with only summer properties in Chester beyond about one mile of Dayville. At the flowage easement Guide Taking Line, four improved properties at the south end of Kinney Brook Road will be acquired in fee, because flowage will interfere with access. Part of the Littleville Fair Grounds, site of an annual country fair and livestock show will be encumbered by flowage easement.

The proposed relocation of part of East River Road will extend from its intersection with Maynard Hill Road in a southwesterly direction, across Bromley Road to the Skyline Trail. Short distances of Maynard Hill Road, East River Road, and Kinney Brook Road, will be raised to provide access to the relocated road. The bridge connecting Kinney Brook Road and East River Road across the Middle Branch is above elevation 581' msl.

Exhibit "A" - Reservoir Map - shows the outline of the permanent pool and the approximate outer bounds of fee acquisition due to impairment of access; the approximate layout of the proposed relocation of East River Road; and the approximate outline of the proposed impervious borrow area and relocation of Goss Hill Road.

## 6. MINERAL DEPOSITS

Field inspections throughout the proposed reservoir site have disclosed no evidence of mining or valuable mineral deposits. Relatively small sand and gravel removal operations are being conducted at several points. Fairly substantial quantities of fair quality bank run gravel occur throughout the area and have variable value above that imparted by the overburden depending on access, size and quality of the deposit.

## 7. WATER RIGHTS

Water rights associated with the former sawmill at Littleville are known to exist. These rights have only nominal value and are not currently being utilized. It is proposed that these rights be acquired and extinguished.

## 8. PRESENT USES

Land utilization in the project area is relatively static with a gradual trend toward converting small farms to rural residences or summer homes. Although some road frontage is potentially developable for these purposes, there are currently only two new residences under construction in the general area and demand for such land is low. There is no indication that in the foreseeable future there will be any prospect for subdivision development, though the proposed construction of a new regional high school near the south end of North Chester Road may stimulate real estate activity slightly.

There are no industrial or commercial properties in the reservoir area at the present time with the exception of small roadside stands for the sale of produce and the Littleville Fair Grounds.

There is one municipal building, a combination fire station and former one-room schoolhouse used for public meetings, and one church in the project area.

## 9. HIGHEST AND BEST USE

In general, no instance is known of an economically feasible higher and better use than that for which affected properties are currently being utilized.

## 10. UTILITIES

Electricity and telephone service are available from public utilities companies along East River Road. Water supply and sewage disposal is provided privately by individual owners.

## 11. ZONING

Neither Huntington nor Chester has a zoning ordinance or building regulations.

## 12. CROPS

Principal crops in this area are hay, silage corn and legumes raised in conjunction with the small dairy farm operations. There is some local activity relative to the production of maple syrup and there is considerable sugar bush scattered through the project, primarily along the sides of roads. This growth and standing timber to which value may be attributed will be included in basic land values. It is not anticipated that special crop damages will be encountered, and no allowance has been made therefor.



### 13. TRACT REGISTER - ESTIMATED TAX LOSSES

#### A. Estimated Tax Losses:

Although a tract register is normally an early item for insertion in the Real Estate Design Memorandum, property maps and tract data are not available at this time. Owners of record for most improved properties have been identified and tax assessment data has been obtained for these owners. Assessed values of land, insofar as they have been determined, have been extrapolated for total estimated acreage for fee acquisition. On this basis, the following is the estimated total assessed value and annual tax loss for each town.

Chester	\$21,000	\$68/M	\$1428
Huntington	4,000	\$62/M	<u>248</u>

Estimated Total Annual Tax Loss: \$1676

Both towns estimate tax rate increases for 1961, and on this basis the total estimated annual tax loss for the Littleville Reservoir is rounded to: \$2000.

#### B. Project Real Estate Maps:

The estimated 90 tracts that will comprise the project will be mapped on Form ENG-1456a as prescribed in EM-405-1-200, dated 15 August 1957, as required data becomes available. Mapping will be segmented to provide orderly contiguous acquisition of tracts to the fullest extent practicable, and will be performed by a private contractor.

### 14. RELOCATIONS

Details of required relocations will be provided by means of a subsequent Relocations Memorandum No. VI, expressly for that purpose. As an adjunct to general descriptive data, the following brief outline is provided:

#### a. Cemeteries:

Two cemeteries are to be considered in this category. The largest, containing about one acre is located on the easterly side of South Worthington Road in the Village of Littleville. The second is a smaller unit of less than 1/2 acre of developed area and is located on the westerly side of East River Road between the villages of Littleville and Dayville. It has been estimated that there are a total of 350 interred in these cemeteries. They are both administered by the Town of Chester, and it is assumed at this time that relocation may be consolidated into a single tract of approximately 4 acres.

#### b. Highways:

Approximately 2.1 miles of new road will be required under current proposals to relocate 3.4 miles of East River Road that will be abandoned from the damsite northerly to the Village of Dayville. The new road will angle south-westerly from Dayville to the Skyline Trail. The nature of the terrain is such that a right-of-way width averaging 200 feet will probably be required containing about 50 acres.

A short section of Goss Hill Road through the impervious borrow area above the dike will require relocation. It is currently estimated that the relocation can be accomplished within the area to be acquired in fee and no additional land requirements are anticipated.

The permanent pool will sever the current access to South Worthington Road at its southerly or lower end. This road is impassable over most of its length and construction estimates for relocation or improvement to provide adequate access approximate \$125,000 by the most economical means. There are five improvements and approximately 700 acres of rough woodland of low value served by the road and it is proposed that the area be purchased in fee as being to the advantage of the Government. Land estimates and Gross Appraisal include consideration of this area.

c. Public Utilities:

It is estimated that approximately 2.5 miles of electrical distribution and transmission lines will be required to relocate facilities of the Chester Municipal Light Department. About 3.5 miles will be abandoned. Telephone exchange lines are generally underbuilt on electric distribution poles. Relocation will probably be accomplished within the right-of-way and no special requirements for land are anticipated.

d. Town-Owned Facility:

Preliminary contact with Chester town officials indicates a desire to have a combination fire station and town meeting hall relocated. At this time, an alternate site has not been selected and it is unlikely that the relocation can be accomplished by physically moving the structure. Details of the recommended plan of relocation or replacement will be furnished in the Design Memorandum for Relocations No. VI. The small tract of land is included in the land estimate and Gross Appraisal.

15. BORROW REQUIREMENTS

Pervious and impervious borrow areas currently estimated to be required in conjunction with construction are partly within the project area and have been included in fee. One area of impervious borrow outside the project area near the summit of Goss Hill Road in Huntington estimated to contain 100 acres will be required. Relocation of part of Goss Hill Road may be necessary and provision therefor has been included under "Relocations". It is currently proposed to acquire this area in fee and an estimated value therefor has been included, based on comparison to recent sales of similar land. This area will include a small dairy farm and one residence. See Exhibit "A" Reservoir Plan.

## 16. PROJECT OPERATIONAL DATA

### A. Reservoir Data:

<u>Features</u>	<u>Elevation msl</u>
Permanent Water Supply Pool	518'
Spillway Elevation (Flood Control)	576'
Top of Dam	596'
Maximum Guide Taking Line - Fee (5-year frequency)	550'
Maximum Guide Taking Line - Flowage Easement	581'

Based upon the lack or inadequacy of access to remainders, it is proposed to acquire entire ownerships following approved acquisition policies except where improved access may be available in conjunction with road relocation. Flowage easements will therefore be estimated only for the upper reach of the reservoir. Estimated acquisitions will be subject to refinement when tract data is available to ascertain actual boundaries, secondary access and other factors required to apply approved acquisition criteria.

### B. Frequency Data:

<u>Pool Elevation msl</u>	<u>Frequency in Years</u>
Permanent Pool 518'	0
GTL - Fee 550'	5
555'	10
562'	20
567'	30
Spillway Crest 576'	50
578'	100
GTL - Flowage Ease. 581'	300

At spillway crest the capacity of the Littleville Reservoir is 23,000 acre feet equivalent to 8.2 inches of run-off from 52.3 square miles net drainage area.

If regulation of the Littleville Dam results in a pool level exceeding the spillway crest elevation of 576' msl, surcharge storage will become effective. The proposed guide taking line provides for surcharge storage of the magnitude of that which can reasonably be expected. The Guide Taking Line for flowage easement at 581' provides 5' of clearance above spillway crest and is considered adequate for anticipated surcharge and backwater effects.

Based upon maximum outlet discharges of 1500 c.f.s., no special conditions of overflow or excessive bank erosion are anticipated downstream from the dam. The Middle Branch has an estimated capacity of 2000 to 3000 c.f.s., but due to uncontrolled residual drainage area, release will be held to 1500 c.f.s. or less. The channel of the Westfield River proper is considered adequate to handle combined discharges from Knightsville Dam on the East Branch and this proposed Littleville Dam on the Middle Branch without special provisions. It is estimated that the maximum period to release the design storage capacity of the Littleville Reservoir will be about ten days under average conditions.

## 17. RESERVOIR MANAGEMENT

Under the presently proposed dual-purpose plan of utilization of the Littleville Reservoir for flood control and as a water storage reservoir, a permanent pool will be created to elevation 518' msl which will have an estimated area of 275 acres. The actual use of this water storage reservoir will be projected an estimated 15 years, during which time the pool will be available for unlimited recreational purposes. Prior to the use of the pool as a water supply, recreational use will be subject to such regulation as may be initiated by the Massachusetts Department of Public Health.

In order to provide maximum utilization of the recreation facility, it is currently proposed that approximately 1000' of East River Road which will be abandoned south of the intersection of the relocated route will be maintained as access and an area along the permanent pool will be developed for use.

Details of the recommended program of reservoir management will be contained in a separate Design Memorandum for Reservoir Management No. IX.

## 18. CONSTRUCTION ACCESS

It is not presently anticipated that special access roads will be required during construction. Portions of North Chester Road south to Route #112 in Huntington and part of Goss Hill Road in Huntington will be used for construction access.

It is anticipated that expenditures for repair to the paved surface of North Chester Road will be the obligation of the construction contractor.

That portion of Goss Hill Road from a connecting bridge over the Middle Branch to North Chester Road up to the top of the dam and access road will be widened slightly and paved under PL 86-645, at an estimated cost of \$25,000. It is not anticipated that additional real estate will be required for this purpose.

## 19. SPECIAL CONDITIONS

The proposed establishment of a water supply reservoir in conjunction with the flood control retention basin, will require the eventual acquisition of special sanitary easements, pipe line easements and easements or rights for other purposes. The acquisition for the flood control retention basin above the water supply pool will extend well beyond the probable requirements for sanitary easements around most of its periphery. It is understood at this time that any additional requirements for land or special easements will be the responsibility of the requesting agency, and further consideration will not be given to these requirements herein.

## 20. ESTATES TO BE ACQUIRED

Acquisition of land and interests therein required for the Littleville Reservoir will involve fee, flowage easement and a combination of fee and easement. It is planned that in instances where two or more estates are required from the same ownership, evaluation and acquisition will be coordinated to reduce administrative and acquisition costs to a minimum. Estates to be acquired will be predicated upon the following:

A. Fee title will be acquired to lands within the construction and work areas; lands within the retention basin below elevation 550' msl, and to exterior property bounds where required fee acquisition will effectively eliminate access to remainders based upon sound real estate practices.

B. Flowage easements will be acquired over lands lying above 550' msl to elevation 581' msl, except as noted above.

Standard Forms of option will be used where fee title only is required and ENG Form 2970 "Offer to Sell Easement" as promulgated by EM 405-1-620 will be used for all forms of easement required. Estates will, in each instance, conform to those set forth in Appendix III of EM 405-1-640.

The element of clearing tree growth in conjunction with construction work will be limited to elevation 525' msl. Clearing rights will therefore not be required in conjunction with flowage easement estates.

## 21. LAND ACQUISITION SCHEDULE

Bids for the construction of the Littleville Dam and appurtenant structures are proposed for invitation in the spring of 1962 with bid opening early in FY 1963. It is estimated that construction will commence during the summer of 1962 with a terminal date of December 1964.

It is planned that detailed appraisal work will commence as soon as adequate maps and tract data are available about July 1961, and that all tracts required for construction and work areas will be acquired prior to the award of contract. The currently estimated terminal date for lands acquisition is July 1963.

## 22. RESETTLEMENT COSTS

It is currently estimated that there will be 48 units eligible for resettlement allowances. 4 Units including three dairy farms and a former nursing home are estimated to cost \$1000. each. 27 residences are estimated at \$600 each; 15 summer residences and 2 miscellaneous units are estimated at \$500. each.

### RECAPITULATION

27 Occupied Residences @ \$600	\$16,200
15 Summer Cottages @ \$500	7,500
3 Dairy Farms @ \$1000	3,000
1 Former Nursing Home @ \$1000	1,000
2 Miscellaneous @ \$500	<u>1,000</u>
	\$28,700

### ADMINISTRATIVE COSTS OF RESETTLEMENT

44 Units @ \$75	\$3300	
4 Units @ \$150	<u>600</u>	
	\$3900	<u>3,900</u>
		\$32,600

Rounded to: \$33,000

## 23. ADMINISTRATIVE COSTS

Based upon data obtained from current contracts in similar areas plus cost data experience for staff components, administrative costs of the lands acquisition program for Littleville Reservoir are estimated as follows, based upon an estimated 90 tracts:

<u>Item</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Mapping and Survey	\$200	\$18,000
Appraisal (Estimated Average)	\$200	\$18,000
Title Evidence	\$160	\$14,400
Negotiations, closing and condemnation	\$300	\$27,000
Totals:	\$860	\$77,400
Administrative Overhead: 14%		<u>10,836</u>
	Total Costs:	\$88,236
	Rounded to:	\$90,000

## 24. SEVERANCE DAMAGE

Under the proposed plan of purchasing in fee to the exterior bounds of properties where inadequate access will be available to remainders, total land requirements have been included in land estimates. Severance damage will therefore occur only at the upper reach of the retention basin where partial acquisition may cause a diminution in value of remainders. These differences should be relatively minor and are largely reflected in estimated damages on the "Before and After" valuation basis used herein. No special allowance for severance damages has been included.

## 25. BASIS FOR LAND AREA ESTIMATE

The steep wooded slopes of the enclosing ridges on either side of the Middle Branch and throughout the general area tend to increase the cost of road construction to exorbitant levels. This situation makes it economically unsound to extensively relocate town or county roads. This steep woodland with only scattered timber growth of merchantable quality has little value, and there are very few improvements except along the river. For the same reasons, it is proposed that a rather extensive area currently served by the So. Worthington Road connecting from East River Road but not improved or maintained for a sufficient distance to permit access from any other road will be purchased in lieu of constructing a new road or improving existing right-of-way at greater cost, under the authority of ER 1180-1-1. Acquisition of this area includes five improvements and the total estimated value is \$75,000 as compared to an estimate of \$125,000 to improve the existing right-of-way to provide an alternate access.

At this time, there is no data available indicating the property bounds of any owner. A general statement of location has been obtained from a few of the local year-around residents, but local property records for tax or other purposes do not include maps or plans. Total estimates of acreage have been based primarily on assessed acreage for each owner where it is anticipated that the total ownership will be purchased in fee. On the east side of the river, it was assumed that most property bounds will extend to but not beyond the Chester-Huntington Town line. On the west side, it was assumed that the average exterior bound would lie between East River Road and Bromley Road. No instance was found where an owner had frontage on both roads and the average penetration appears to be close to the center line between them.

These lines were established as the east and west bounds of anticipated fee acquisition. The damsite provided the south bound and the north bound was established as the northernmost property on each side of the river which would be purchased in fee. By planimeter, total acreage to be acquired in fee in the retention basin was estimated at 1480 acres. The damsite covers 70 acres and the borrow area on Goss Hill Road of 100 acres provided a total of 1650 acres. The flowage easement area following the 581' contour north of the fee area planimetered 30 acres. Land estimated by this means was then checked against the acreage assessed to known owners which totalled 1540 acres. Since it is known that there are additional owner-ships within the project, the estimated acreage appears reasonably sound and the gross appraisal is predicated thereon.

## 26. VALUATION PREMISE

Each improved property within the project has been inspected from the exterior and a random sample of interiors were inspected and owners interviewed. Considerable data was collected from real estate brokers, bank personnel and town officials. Recent sales of properties reasonably comparable to those in the project area were carefully analyzed and prices of record verified with grantors or grantees wherever possible. Estimated value contributions of improvements were separated to avoid error resulting from lack of tract data. Land values were estimated on the basis of primary characteristics based on the highest and best use and comparison to recent sales on an acreage basis where pertinent.

Areas of land not associated with specific improvements have been classified as: tillage, pasture, woodland, gravel and waste, the latter category including roads and water. Tillage and pasture in active agricultural use have considerably greater unit value than similar land not in use or capable of imminent use. Average values have been used based on total land in each category and the contributory value for land of that type derived from the analysis of comparable sales. No general area or acreage tract has been considered to have special value for subdivision or outsale as building lots, however, several ownerships include land which has some potential for this use and consideration has been given to the factor in the evaluation process.

There follows a list of selected sales from the total developed to date considered reasonably comparable to the average type of property within the project area for each category. The relative location of these sales is shown on EXHIBIT "C" - Sales Map.

27. COMPARABLE SALES

Tabulation of Supporting Sales Data:

<u>Sale No.</u>	<u>Grantor</u>	<u>Grantee</u>	<u>Date</u>	<u>Area</u>	<u>Price</u>	<u>Imp. Value</u>	<u>Average P/Ac.</u>
1.	Belcher	Rodier	1959	60 A	\$8500	\$7000	\$ 25
2.	Liegerot	Babcock	1960	4 A	\$7700	\$7200	125
3.	Wellspeak	Knowlton	1960	116 A	\$9500	\$8000	\$ 13
4.	Belleville	Nowill	1960	12 A	\$3800	\$3200	\$ 50
5.	Woodruff	Meacham	1959	40 A	\$3000	\$2000	\$ 25
6.	Hickling	Mason	1958	210 A	\$37000	\$25,000	\$ 57
7.	Snow	Cole	1960	60 A	\$20000	\$16,000	\$ 67
8.	Cochrane	Guild	1960	190 A	\$11200	\$ 5,200	\$ 32
9.	Hill	Mogue	1959	2½ A	\$2000	\$ 1,500	\$ 200
10.	Davis	Curran	1960	1 A	\$7500	\$ 6,500	\$1000
11.	Pomeroy	Machin	1958	2½ A	\$3500	\$ 3,000	\$ 200
12.	Craft	Holcomb	1959	10 A	\$1000	-	\$ 100
13.	Craft	Colbert	1959	10 A	\$ 900	-	\$ 90
14.	Gleason	Treadwell	1958	50 A	\$1500	-	\$ 30
15.	Stanton	Donovan	1958	30 A	\$1000	-	\$ 33
16.	Whitaker	Donovan	1959	18 A	\$ 850	-	\$ 47
17.	Strickland	Donovan	1956	158 A	\$9000	\$ 200	\$ 55
18.	Clark	Knewalk	1958	306 A	\$6500	-	\$ 21
19.	Sherwood	Oleksak	1959	65 A	\$1000	-	\$ 15
20	Kiernan	Nagler	1959	100 A	\$1000	-	\$ 10



## 28. COMPARABLE SALES ANALYSIS

### Sale #1 - Belcher to Rodier - 60 Acres - \$8500

This sale consists of a rural residence typical of many in the project area located on Montgomery Road, Huntington, about one mile southeast of the damsite. The land is sloping and rocky, and has little value. All merchantable timber was cut off prior to sale. There is a large level area of about 5 acres for the improvements which consist of a 2½ story frame residence containing 9 rooms and one full bath, with central heat and a large frame barn. Both buildings were in good condition. The sale is broken down as follows:

5 Acre Lot	\$1000
55 Acres rear woodland	500
House	6000
Barn	1000
Total:	\$8500
Sale Price:	\$8500

### Sale #2 - Liegerot to Babcock - 4 Acres - \$7700

This sale is located on the northerly side of Woodruff Hill Road, Huntington about 1/2 mile southwest of the damsite. A large sloping lot of 4 acres is improved with a small 1½ story frame house containing 5 rooms and 1 full bath. There is a full basement. There is no central heat. Condition at the time of sale was only fair with considerable repair necessary and the lot was overgrown with brush.

There are a number of outbuildings including a small frame barn, a 2-story frame poultry house both in good condition, and several smaller buildings in poor condition which will be removed. The sale is broken down as follows:

4 Acre Lot	\$ 500
House	6000
Outbuildings	1200
Total:	\$7700
Sale Price:	\$7700

### Sale #3 - Wellspeak to Knowlton - 116 A - \$9500

This sale is located on Blandford Road, Huntington, About 4 miles southeast of the project. The location is slightly better, being closer to the center of town. The sale included 116 Acres of land in 3 parcels. A 1-acre lot is improved with a 2½-story frame residence containing 8 rooms and 1 full bath. There is a full basement with central heat. The exterior is painted clapboard siding and slate shingle roof. Except for interior redecoration, the house was in good condition at the time of sale. A small frame barn in good condition is used as a garage and for storage. The other two tracts containing 30 and 85 acres are rough sloping rear woodland of very little value. The sale is broken down as follows:

1 Acre Lot	\$ 500
115 Acres Woodland	1000
House	7200
Barn	800
Total:	\$9500
Sale Price	\$9500

Sale #4 - Belleville to Nowill - 12 A - \$3800

This property is located on the south side of Norwich Road, Huntington, about 1/2 mile east of the damsite. There is a 2-acre open level lot and 10 acres of poor sloping woodland. The improvements consist of a 1½-story frame cottage containing 5 small rooms and one full bath. There is a full basement with a one-pipe coal-fired hot air furnace. At the time of sale, the interior was in poor condition, requiring complete remodeling. There are two small sheds of little value. The sale is broken down as follows:

2 Acre Lot	\$ 500
10 Acre Woodland	100
House	<u>3200</u>
Total:	\$3800
Sale Price:	\$3800

Sale #5 - Woodruff to Meacham - 40 A - \$3000

This property is located on Chester Hill Road (Skyline Trail) in Chester, about 1/2 mile west of the project. The land is poor quality sloping woodland with a one acre cleared lot improved with an old 1½-story frame residence containing 6 rooms and one full bath. There is a partial basement with a wood fired hot air one pipe furnace. At the time of sale, the house was in poor condition. The sale is broken down as follows:

1 Acre Lot	\$ 500
39 Acres Woodland	500
Dwelling	<u>2000</u>
Total:	\$3000
Sale Price:	\$3000

Sale #6 - Hickling to Mason - 210 A - \$37,000

This property is a large well laid out dairy farm with a capacity of 40-50 cows located on Kinney Brook Road, Worthington, about 3 miles north of the project. The land is divided into a 5-acre farmstead; 48 acres of tillage; 50 acres of pasture and the remainder woodland with no merchantable growth. The house is a 2-story frame unit built in 1790 and completely remodeled prior to sale. There are 10 rooms and 2 full baths. A full basement contains an oil fired hot air furnace. The dwelling is in very good condition.

The main barn is a large 2-story structure with a concrete floored basement stable and stanchions on the first floor providing a total capacity of up to 60 cows. There are three small buildings for young stock, an equipment shed, a 2-car garage and several small outbuildings including a sugar house. There are about 25 large sugar maples around the farmstead.

The sale is broken down as follows:

5 Acres Farmstead	\$3000
48 Acres Tillage	4800
50 Acres Pasture	3000
107 Acres Woodland	1000
House	16000
Barn	7000
Outbuildings	<u>2500</u>
Total	\$37,300

Sale Price \$37,000

Sale #7 - Snow to Cole - 60 A - \$20,000

This sale property is located on the east side of Route #66, Westhampton, Mass., about 8 miles east of the project. The location is superior to the project area. The sale consisted of 60 acres of land of which 15 acres are tillable; 5 acres are developed farmstead and 40 acres are woodland with no merchantable growth.

Improvements included a 9-room, 1-bath dwelling of 2-story frame construction. There is no central heat and condition was good. There is a small frame dairy barn, two large storage sheds, an ice house and several small outbuildings.

The property was formerly used as a dairy farm, but has not been active for several years. The land has been maintained by others. The grantee has constructed a large modern poultry house and intends to use the property as a poultry farm.

The sale may be broken down as follows:

5 Acres farmstead	\$3000
15 Acres tillage	1500
40 Acres woodland	400
House	9500
Barn	2500
Outbuildings	<u>3000</u>
Total:	\$19,900
Sale Price:	\$20,000

Sale #8 - Cochrane to Guild - 190 A - \$11,200

This sale is located in Peru, Massachusetts, about 1½ miles east of the center and about 12 miles north of the project. The location is similar to the project area. The property is a small dairy farm with 62 acres of tillage, 4-acre farmstead and 124 acres of rough pasture and poor woodland.

There is a small one story frame residence containing 6 rooms and one full bath. There is no central heat. Condition was fair at the time of sale. There is a small dairy barn with a concrete floored basement and wood stanchions with a capacity of 36 head in poor condition, and several small outbuildings. The grantee has had to build a new milk room and extensively repair the dwelling and barn.

The sale may be broken down as follows:

4 Acres farmstead	\$1000
62 Acres tillage	4000
124 Acres woodland	1200
House	3500
Barn	1200
Outbuildings	<u>500</u>
Total:	\$11,400
Sale Price:	\$11,200

Sale #9 - Hill to Mogue - 2½ Acres - \$2000.

This sale consists of a small summer cottage on 2½ acres of sloping wooded land on the east side of Kinney Brook Road, Chester, adjoining the project area in the Village of Dayville.

The cottage is an older one-story, 3-room unit built on crawl space with an attached garage at the rear and a screened porch at the front. The cottage is set into the side of a steep rise above the road. The exterior is sided with clapboards and has an asphalt shingle roof. The interior is unfinished. Water is from a spring.

The sale is broken down as follows:

2½ Acre Lot	\$ 500
Cottage	<u>1500</u>
Total:	\$2000

Sale #10 - Davis Curran - 1 A - \$7500.

This property is located in a development of summer cottages on a ridge above Norwich Pond in Huntington. The area is well maintained and the location is superior to the project area though more remote.

The subject lot is open and cleared and is landscaped around the cottage. There is a good view.

The cottage is a 2-story frame unit with four good rooms and one full bath on crawl space. The exterior is clapboard sided with asphalt shingle roof. The interior is finished on the first floor. The cottage is in very good condition.

The sale is broken down as follows:

1 Acre Lot	\$1000
Cottage	<u>6500</u>
Total:	\$7500

Sale #11 - Pomeroy to Machin - 2½ A - \$3500.

This summer cottage is located off the west side of East River Road, Chester, adjoining the project area. The lot is 200' wide by 500' deep on the side of a fairly steep slope above the road. The cottage is placed on a small level plateau about 300' from the road and contains 4 rooms and 1 bath. The unit is one story frame construction with clapboard siding and asphalt shingle roof on crawl space. The interior is partly finished and the cottage was in good condition at the time of sale.

The sale is broken down as:

2½ Acre Lot	\$ 500
Cottage	<u>3000</u>
Total:	\$3500

Sale #12 - Craft to Holcomb - 10A - \$1000.

This sale consisted of a raw lot on the easterly side of Chester Hill Road in Chester, about 1/4 mile west of the project. A series of about eight of these lots have been sold, each having about 500' frontage and containing about 10 acres. The land slopes rather steeply down from the road to a depth of about 300' where it levels out. Small cottages have been built on the level area of three of these lots. The subject levels out at a depth of 200' and is lightly wooded and therefore slightly superior to the others. There is no electricity available to these lots at the present time and buyers must provide their own well and sewage disposal facilities.

Sale #13 - Craft to Colbert - 10 A - \$900

This sale is about 1000' north of Sale #12 and was from the same original tract. The front of the lot is clear, but the slope is steeper and the level area is 300' from the road. This lot also has no electricity, but did have a small spring near the rear which has been developed for water. The buyer has built a small 4-room cottage at the foot of the hill.

Sale #14 - Gleason to Treadwell - 50 A - \$1500

This sale is located on the northerly side of Allen Coit Road, Huntington, about 2 miles easterly of the project. The property was formerly a rural residence, and the buildings were destroyed by fire. The land was purchased as a lot and a new house is under construction near the site of the former residence. The land includes a large sloping cleared lot of about 10 acres and the remainder is rough sloping woodland of little value, serving only as a protective area. The location is inferior to the project area.

The sale is broken down as follows:

10 Acres Lot @ \$100	\$1000
40 Acres Woodland	<u>400</u>
Total:	\$1400
Sale Price:	\$1500

Sale #15 - Stanton to Donovan - 30 A - \$1000.

This sale is located on the westerly side of North Chester Road in Huntington abutting the Chester-Huntington Town Line, and in the proposed dam-site. It was purchased by Donovan Brothers for bank run gravel, and part of the gravel has been removed. The parcel has a frontage of about 400' and a working face of 80'. About 10 acres are readily accessible fair quality gravel, the remainder poor sloping woodland of low value.

The sale is broken down as follows:

10 Acres gravel bank @ \$100	\$1000
20 Acres woodland	<u>200</u>
Total:	\$1200
Sale Price:	\$1000

Sale #16 - Whitaker to Donovan - 18 A - \$850

This sale is located on the east side of the Middle Branch across from East River Road in Chester and is in the northerly area of the proposed damsite. The parcel was purchased for gravel and has 500' frontage with a 30' face of fair quality gravel. The buyer estimates that there are about 8 acres of useable gravel. The remainder is rear woodland of little value.

The sale is broken down as follows:

8 Acres gravel @ \$100	\$800
10 Acres woodland	<u>100</u>
Total:	\$900
Sale Price:	\$850

Sale #17 - Strickland to Donovan - 158 A - \$9000.

This sale is located on the easterly side of Route #112 in Huntington, about 1/4 mile east of the damsite. The parcel was a former farm but was purchased for gravel and road frontage to establish a distribution center for the gravel and sand business of the company. There was an old 2-story frame poultry house on the tract which was in poor condition and has been rebuilt as a garage. 3 Acres and the remaining buildings were reserved by the seller.

The parcel sold has about 600' frontage and about 30 acres of gravel to an average 30' face. The back land is rough sloping woodland of little value.

The sale can be broken down as:

10 Acres useable frontage @ \$400	\$4000
30 Acres gravel @ \$100	3000
118 Acres woodland	2000
Poultry House	<u>200</u>
Total:	\$9200
Sale Price:	\$9000

Sale #18 - Clark to Knewalk - 306 A - \$6500

This sale is located on both sides of Route #112 in Huntington, abutting the Worthington-Huntington Town Line, about 4 miles northeasterly of the project. The parcel is part of the watershed of the Knightsville Reservoir and consists of rough steeply sloping woodland. There is some scattered merchantable timber including pine and hemlock on the east side and mixed hardwood on the west side. The frontage, although extensive (600'-800') is not useable and the parcel was purchased as woodland at an average of \$21. per acre.

Sale #19 - Sherwood to Oleksak - 65 A - \$1000.

This sale is located off the easterly side of Bromley Road in Chester, abutting Sale #15 and the proposed damsite. The land is steeply sloped and medium to heavily wooded primarily with mixed hardwood. It was purchased as woodland and has little effective frontage on the road. The sale averages about \$15. per acre.

Sale #20 - Kieran to Nagler - 100 A - \$1000.

This sale is located on the easterly side of Goss Hill Road, Huntington, about one mile northeasterly of the project. The land is rolling and medium wooded primarily with hardwood with scattered growth of merchantable quality. Access is only fair with little frontage of value, but adequate for cutting timber. The sale averages \$10. per acre.

29. UNIT VALUES

A. Fee Values

Improved Lots: Estimated total acreage in this category was derived from assessor's records. Individual lots ranged from 1/4 acre to 3 acres for most improvements and 4 acres for the farms. Valuation was based on raw land with allowances for lot improvements including wells, septic tanks, etc. included in the estimated contributory value of improvements. Most lots of from 2 to 5 acres appear to sell for \$500. as a standard price. Based on an average of 2 to 2 1/2 acres per lot in the project, an average value of \$250. per acre was estimated.

Tillage and Hayfield: Most of the land in this category is associated with the two dairy farms or is used by them and has been maintained. Smaller areas which are not actively utilized at the present time are located along the road and are clear and level. This land has a potential for future use for building purpose and is included at the same value as land used for agricultural purposes.

From an analysis of farm sales, land of this character was found to contribute about \$100 per acre in this area, and this value has been used herein.

Pasture: Land Classified as pasture is cleared and capable of being worked with mechanical equipment but due to size, shape or topography is not capable of being used as tillage. Fairly large areas of wooded land used as pasture but not sufficiently open to permit cultivation is not included in this category. From the farm sales analyzed, an average contributory value of \$80. per acre applies to this type of land.

Gravel: There are two active gravel banks totaling about 50 acres in the reservoir area plus a similar amount which has not been opened. Several purchases by Donovan Brothers Sand and Gravel Company in the area including the two active areas were purchased at prices that indicate a current value of \$100. per acre for known deposits. Speculative purchases of land areas without test borings are usually \$40-\$50 per acre. The \$100 per acre average value was estimated in view of the small total area included, and the relative certainty that this quantity of commercial grade gravel will be acquired.

Woodland: Most of the land in this category is on the sides of the enclosing ridges. Access is generally difficult but there are several stands of merchantable growth with good access. Wooded pasture is also included in this area, as is consideration of sugarbush. Values range from a low of \$10 per acre for cut-over rear land to \$50 for fair quality merchantable stands, wooded pasture and wooded road frontage. An overall average value of \$30 per acre is estimated as being reasonable

Wasteland: The estimated area in this category includes ownership in roads and the river which contribute value to land in the other categories, but which does not develop a market value of itself.

#### B. Flowage Easement

The area to be encumbered by flowage easement for the Littleville Reservoir is relatively small due to the need to purchase most ownerships in fee and/or as a result of eliminating access to remainders. Estimated damage attributable to easement has therefore been predicated upon consideration of the "before and after" value of individual properties affected thereby. Of the 30 acres estimated in this category, 10 acres are on the Littleville Fair Grounds and will require the removal or relocation of 3 small buildings. Most of the area is grassed and landscaped and diminution of value is estimated at \$4500. Parts of two improved residential lots will account for less than one acre of area, but will reduce value by an estimated \$500. each, or \$1000. The remaining acreage is along the banks of the Middle Branch and Kinney Brook and will result in only nominal damage of \$100. each to five ownerships or \$500. Total estimated damage attributed to flowage easement is only \$6000.

### 30. GROSS APPRAISAL

#### VALUATION

##### A. FEE AREA:

###### (1) Improvements:

<u>Classification</u>	<u>Number</u>	<u>Estimated Value</u>	
Residences	27	\$226,000	
Summer Cottages	15	52,000	
Farms	3	48,000	
Miscellaneous	3	20,000	
TOTALS:	48	\$346,000	\$346,000

###### (2) Land:

<u>Classification</u>	<u>Area Acs.</u>	<u>Unit Value</u>	<u>Total Value</u>	
Improvement Sites	100	\$250	\$25,000	
Tillage & Hayfield	450	100	45,000	
Pasture	150	80	12,000	
Gravel	100	100	10,000	
Woodland	800	30	24,000	
Roads, Water & Waste	50			
TOTALS:	1650		\$116,000	\$116,000

B. FLOWAGE EASEMENT: - 30 Acres 6,000

TOTAL VALUE - LAND & IMPROVEMENTS . . . . . \$468,000



31. COST SUMMARY

90 Tracts (60 Owners) 1680 Acres

(1) Fee Title - 1650 Acres	\$462,000
(2) Flowage Easement - 30 Acres	6,000
(3) Crop Damage	None
(4) Water Rights	None
(5) Severance Damage	None
(6) Resettlement Costs	33,000
(7) Relocations (Included in Separate Design Memorandum)	None
(8) Acquisition Costs	<u>90,000</u>
Subtotal:	\$591,000
Contingency - 15%	<u>88,650</u>
Total:	\$679,650
Rounded To:	\$680,000

The contingency allowance of 15% is considered reasonable in view of the lack of tract ownership data at this time, and to provide for unforeseen increases due to possible delays in the acquisition program resulting in further improvement and value appreciation; to compensate for increases due to hidden ownerships and for deficiency awards in condemnation.

32. PERSONNEL AND FACILITIES

The real estate acquisition program outlined herein will be conducted and supervised from the Division Office in Waltham, Massachusetts. It is contemplated that mapping, survey and title evidence will be obtained primarily by contract supplemented by staff employees as overall Division Office requirements permit. Appraisal, negotiations and closings will be accomplished by staff personnel insofar as possible.

### 33. CONCLUSIONS AND RECOMMENDATIONS

Fee and flowage easement areas as set forth in this report are considered tentative in view of the lack of tract data. Final determination of the interests and total land to be acquired within the criteria of the current lands acquisition policy will be dependent upon detailed field investigations and thorough study of each tract as maps and delineated property bounds become available.

It is recommended that the acquisition of lands and easements as proposed in this Design Memorandum for Real Estate be approved and the Division Engineer be authorized to acquire said lands and easements in accordance with existing regulations subject to minor variations as determined necessary by sound real estate practices prior to acquisition.

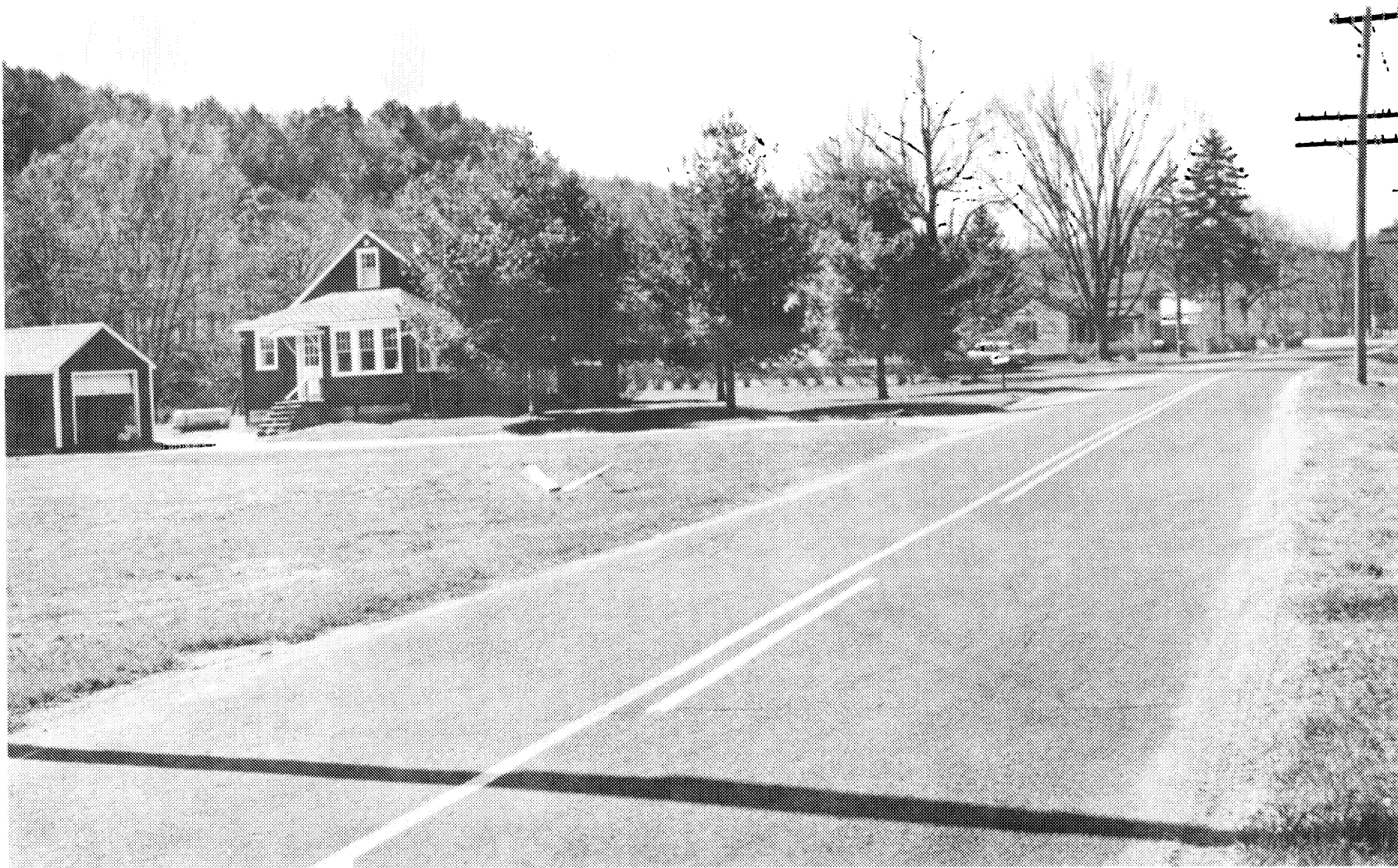


#1. LOOKING EASTERLY ACROSS CENTER LINE OF LITTLEVILLE DAM



#2. ACTIVE GRAVEL BANK IN CONSTRUCTION AREA





#3. LOOKING NORTHERLY THROUGH TYPICAL RESIDENTIAL AREA



4. RESIDENCE ON LOWER SLOPE OF SOUTH WORTHINGTON ROAD





#5. SUMMER COTTAGE - LOWER SLOPE OF SOUTH WORTHINGTON ROAD



#6. SOUTH WORTHINGTON ROAD LOOKING NORTHERLY FROM LOWER SLOPE





#7. RESIDENCE - UPPER SLOPE OF SOUTH WORTHINGTON ROAD



#8. SUMMER PROPERTY - UPPER SLOPE OF SOUTH WORTHINGTON ROAD





#9. BASE OF HOWARD ROAD LOOKING EASTERLY

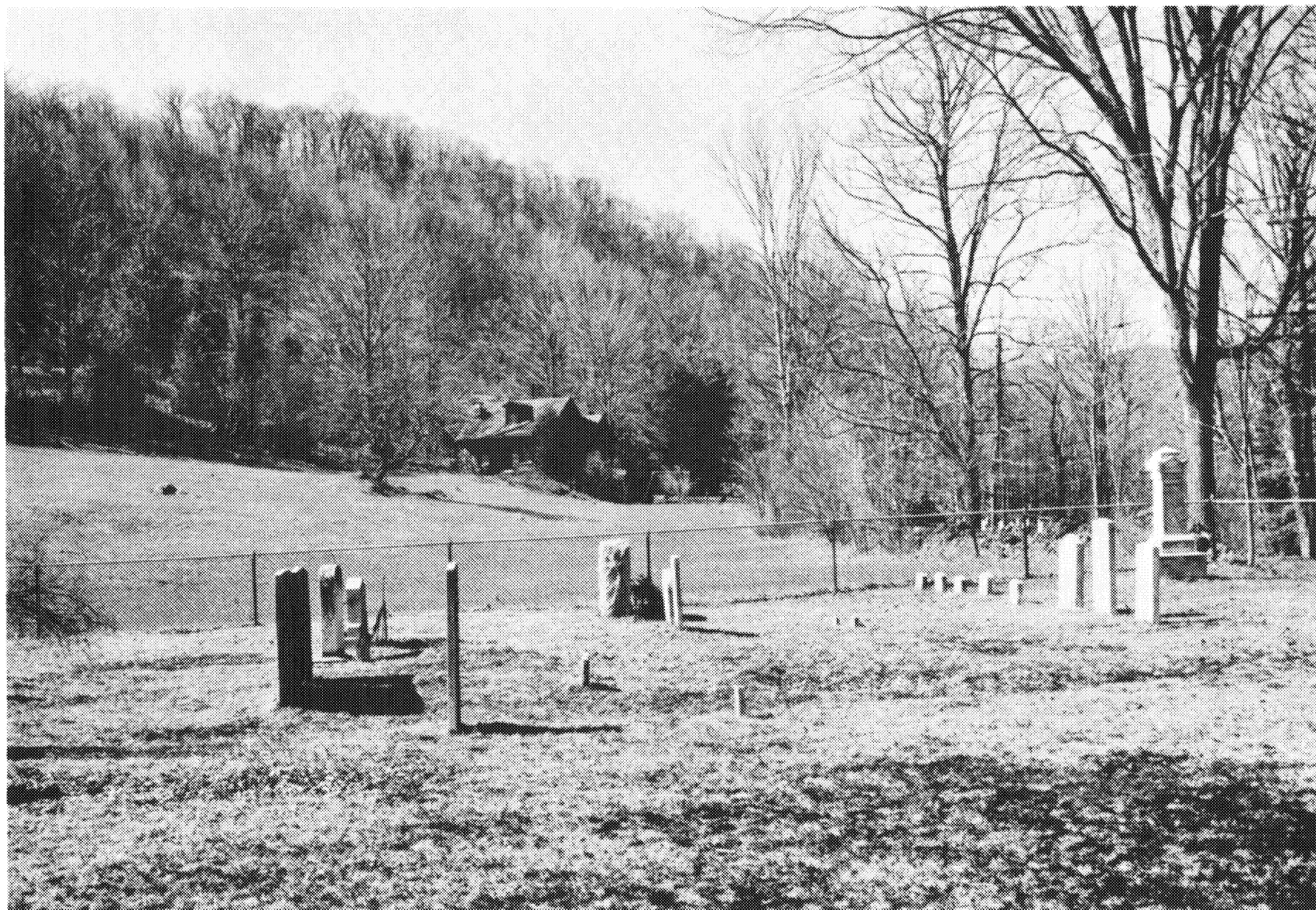


#10. HUNTING LODGE - TOP OF HOWARD ROAD



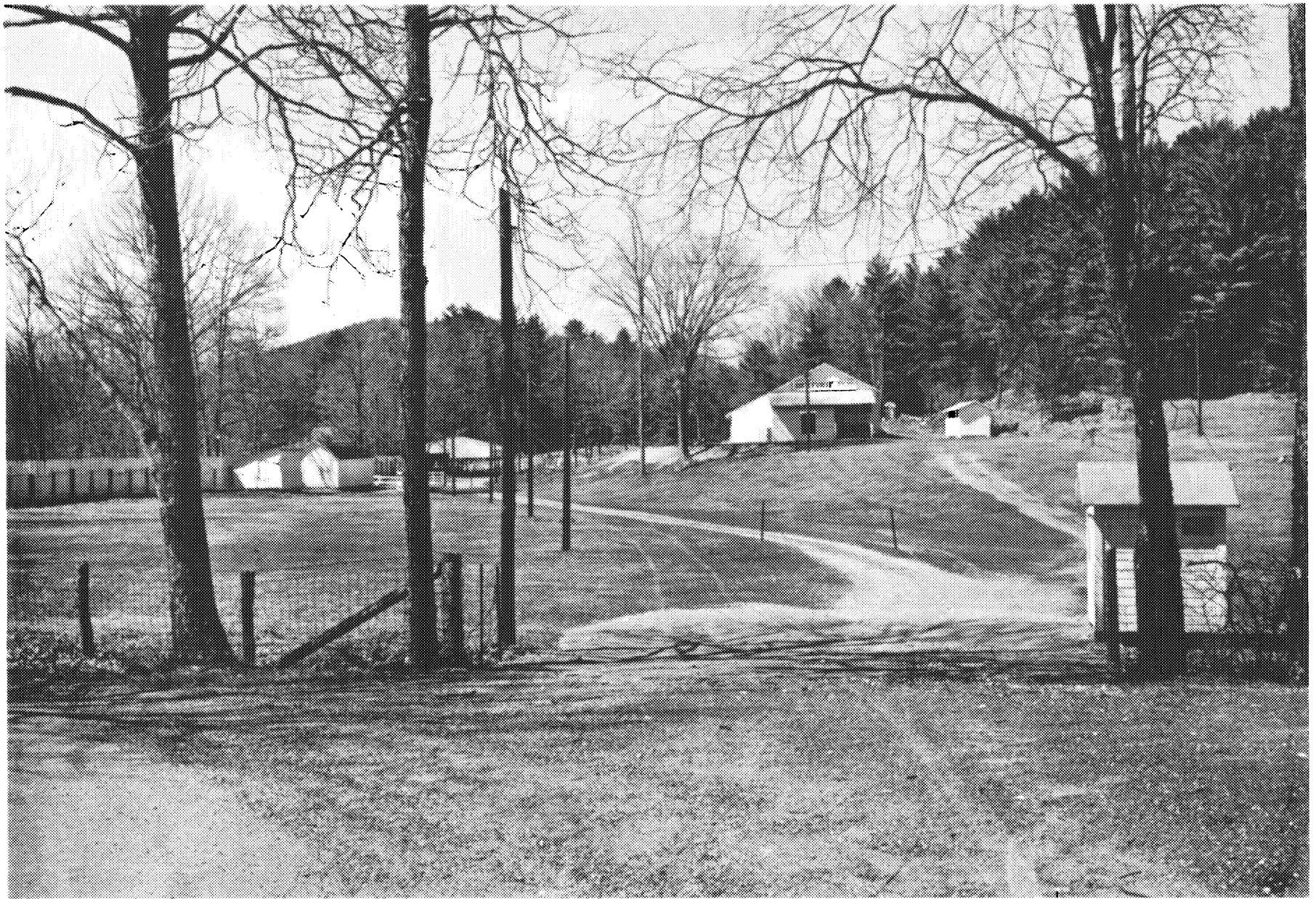


#11. CONTINUATION OF SOUTH WORTHINGTON ROAD -  
IMPASSABLE BEYOND THIS POINT



#12. FISKE CEMETERY - EAST RIVER ROAD



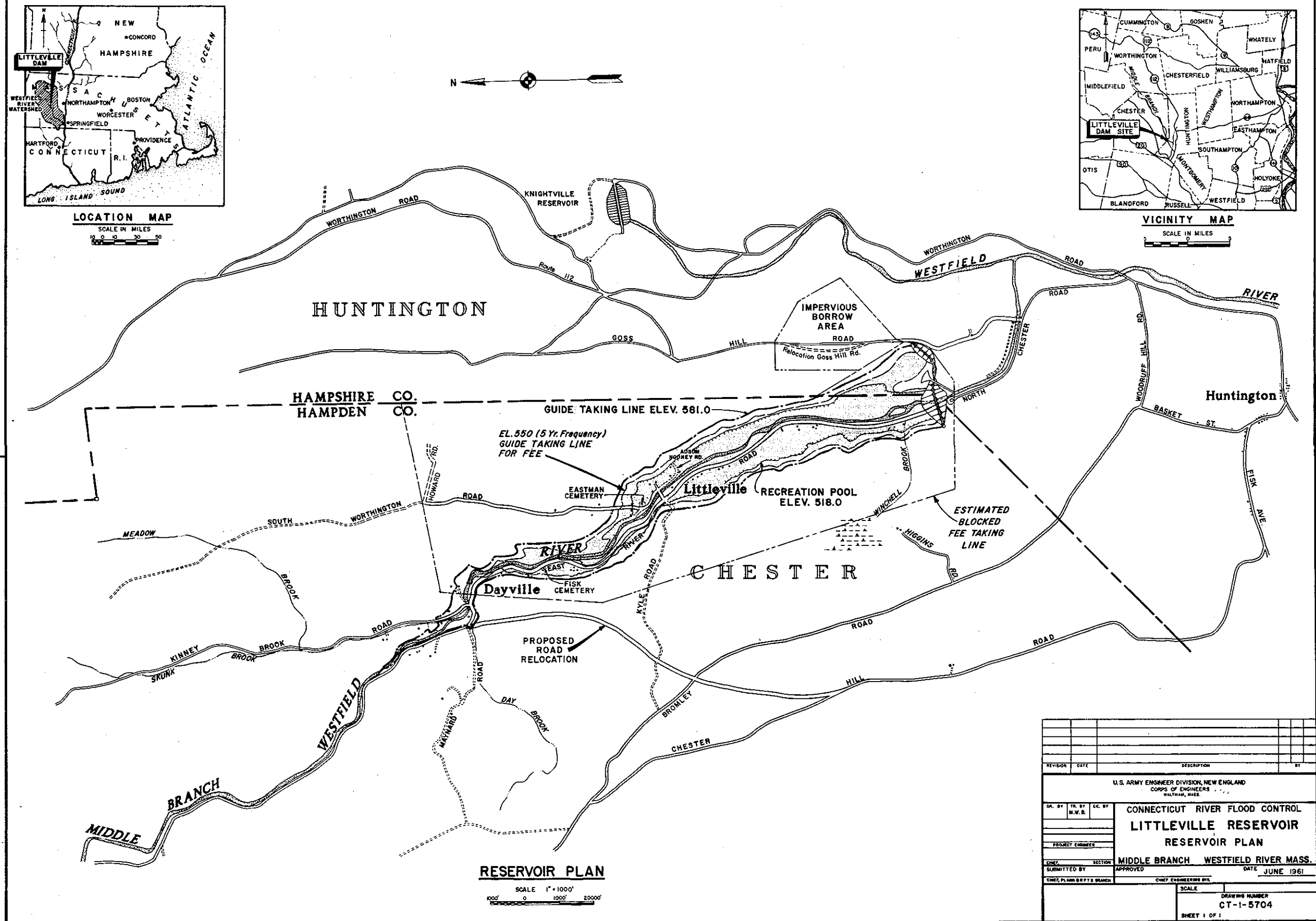


#13. FRONT VIEW OF LITTLEVILLE FAIRGROUND

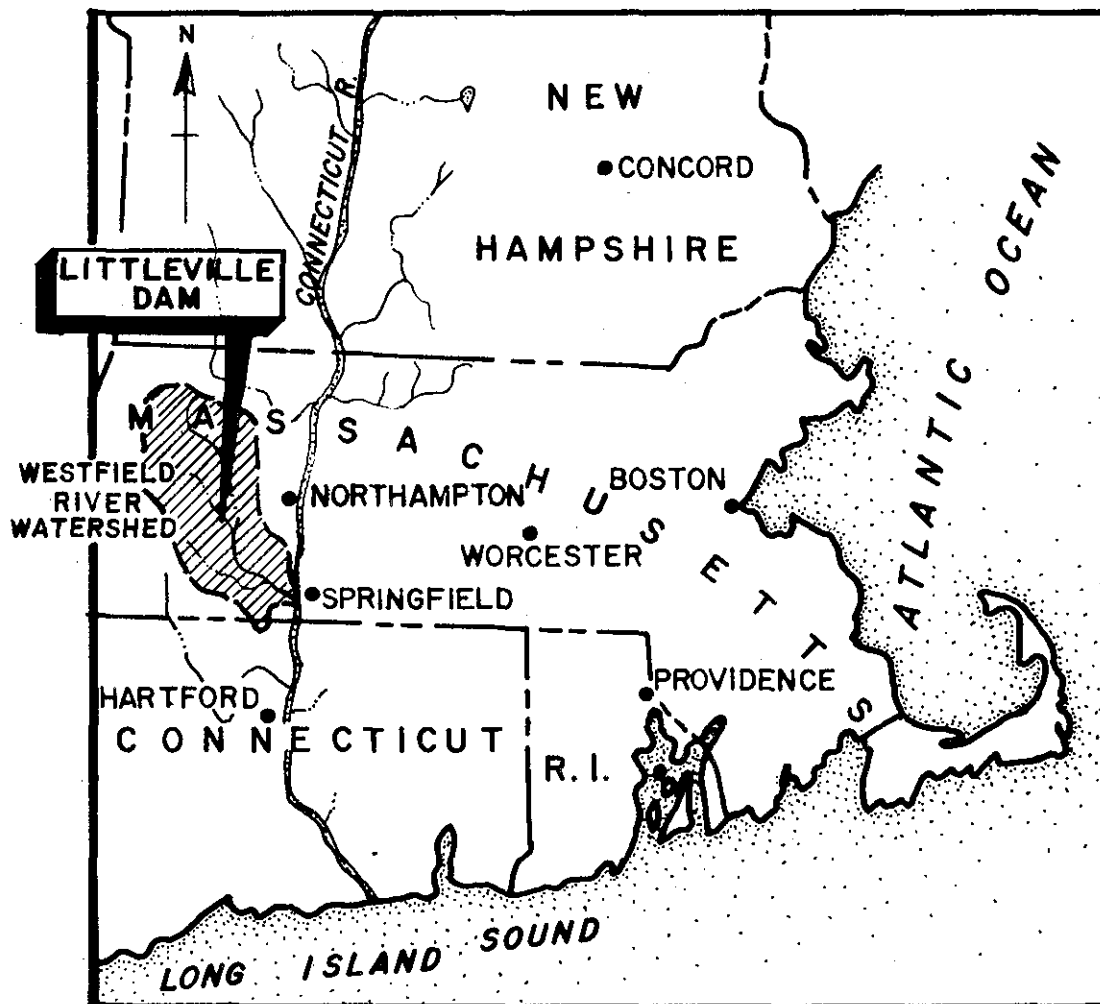


#14. VIEW OF FAIRGROUNDS FROM THE REAR  
DAYVILLE BRIDGE IN BACKGROUND





REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DIVISION, NEW ENGLAND CORPS OF ENGINEERS WALTHAM, MASS.			
DR. BY	TR. BY	CC. BY	
PROJECT ENGINEER			
SUBMITTED BY			
APPROVED			
DATE			
JUNE 1961			
SCALE			
DRAWING NUMBER			
CT-1-5704			
SHEET 1 OF 1			

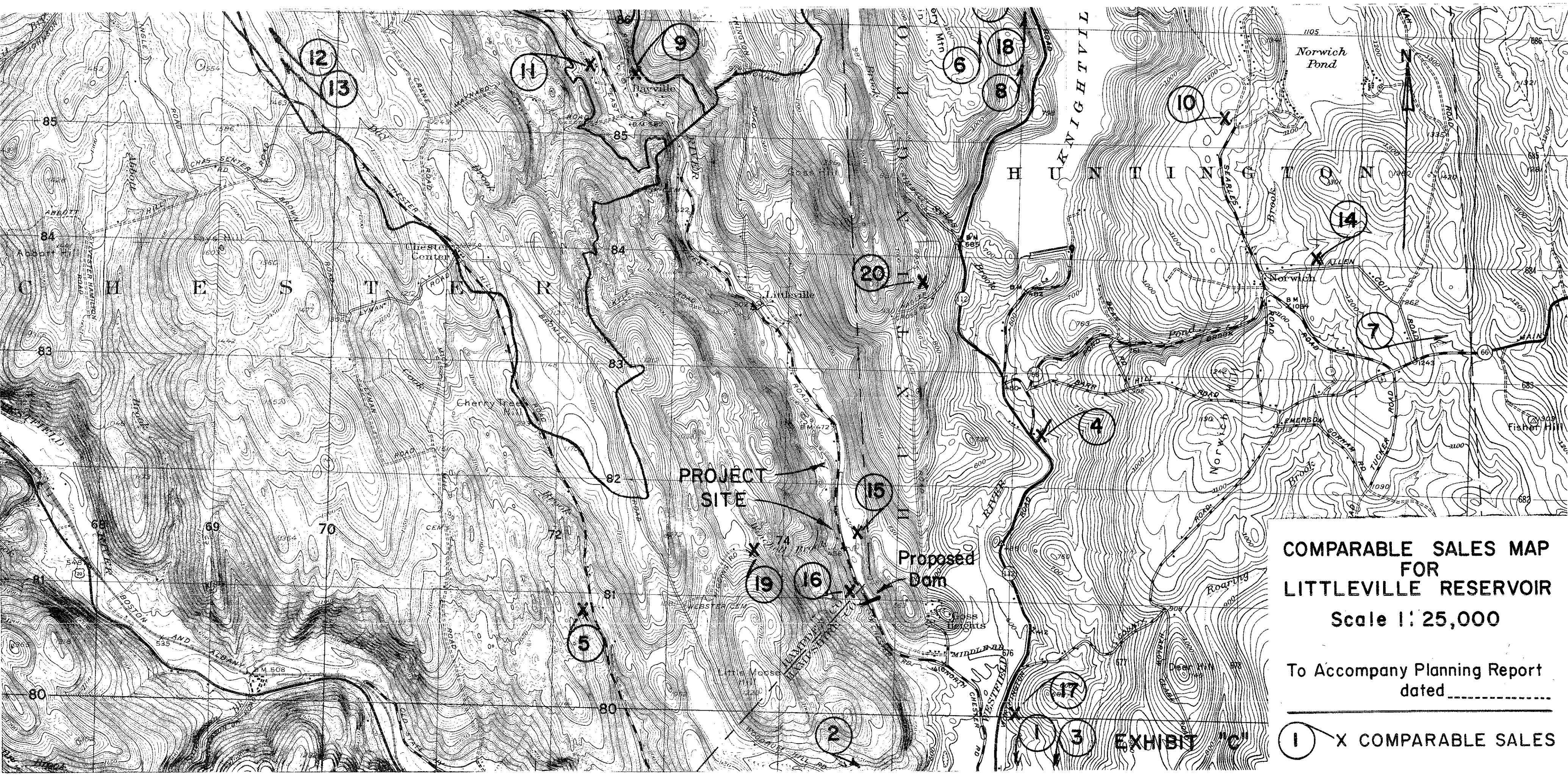


## LOCATION MAP

SCALE IN MILES





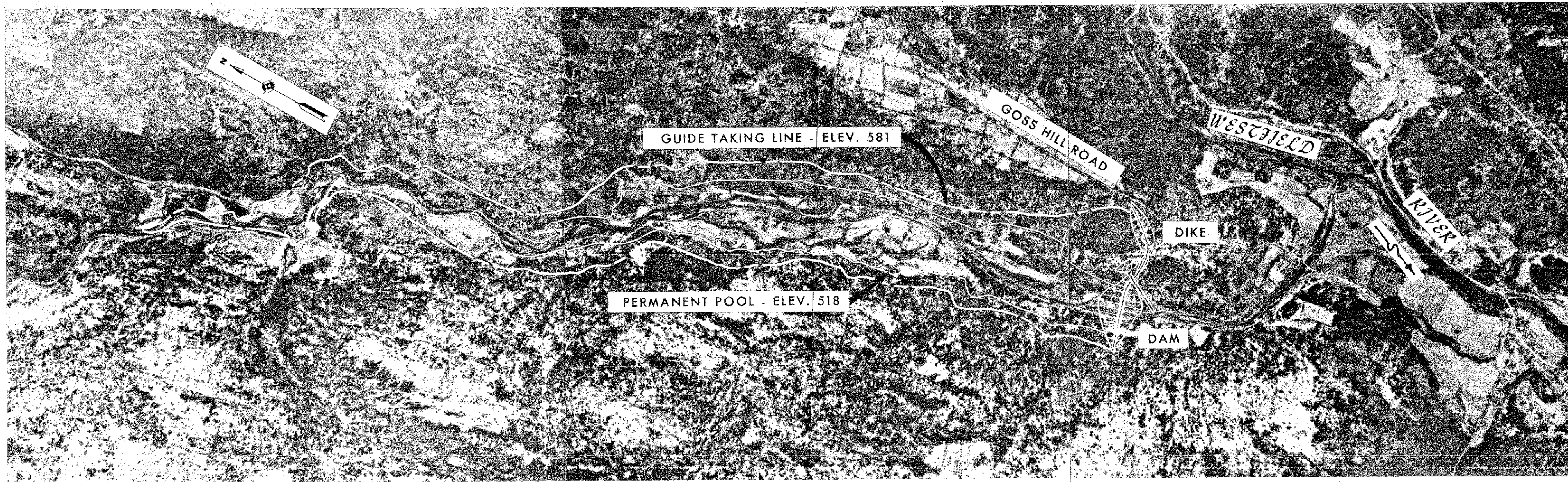


COMPARABLE SALES MAP  
FOR  
LITTLEVILLE RESERVOIR  
Scale 1: 25,000

To Accompany Planning Report  
dated .....

1 X COMPARABLE SALES





UNCONTROLLED MOSAIC  
OF  
CONNECTICUT RIVER FLOOD CONTROL  
LITTLEVILLE RESERVOIR, MASSACHUSETTS  
1:50,000  
U.S. ARMY ENGINEER DIVISION  
NEW ENGLAND CORPS OF ENGINEERS  
NA-19-010-CIV800-00-240  
11 DECEMBER 1985

EXHIBIT D